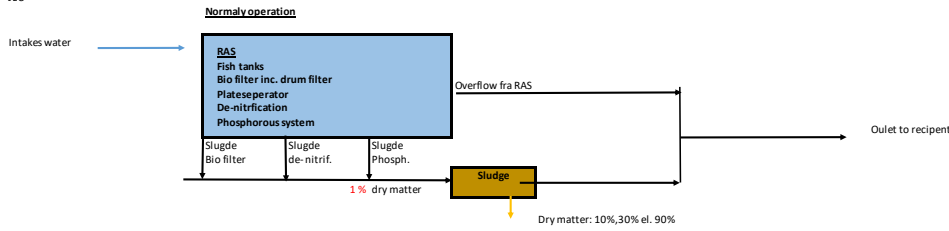


Project Svaberget
 Project no 1184
 Date 12.09.2018
 By JLU

Output from RAS with De-nitrification and phosphorous system
 NOTE: Actual output from system strongly dependant on operation and management of system



		RAS 1	RAS 2	RAS 3	RAS 4	RAS 5	RAS 6	RAS 7	RAS 8	RAS 9	Total peak	units	% operation/year	notes:	notes:
Intakes water peak		Start feed #1	Start feed #2	Parr #1	Parr #2	Smolt #1	Smolt #2	Post Smolt #1	Post Smolt #2	Post Smolt #3					
Max kg feed/day - peak		400	400	1300	1300	3000	3000	4000	4000	4000	21400	kg/day	51%	3 983 610	kg/year
300 l/kg foder	RAS	83	83	271	271	625	625	833	833	833	4458	l/min		829 919	m3/year
100 l/kg foder	RAS+de-nitrification	28	28	90	90	208	208	278	278	278	1486	l/min		276 640	m3/year
40 l/kg foder	RAS+ZWC	11	11	36	36	83	83	111	111	111	594	l/min		110 656	m3/year

Overflow from RAS		ZWC													
		11	11	36	36	83	83	111	111	111					
Qmax=??/min											594	l/min		159 344	m3/year
COD	10 g/kg feed	4	4	13	13	30	30	40	40	40	214,0	Kg/day		39 836	kg/year
Tot N	1 g/kg feed	0,4	0,4	1,3	1,3	3	3	4	4	4	21,4	Kg/day		3 984	kg/year
Tot P	0,1 g/kg feed	0,04	0,04	0,13	0,13	0,3	0,3	0,4	0,4	0,4	2,1	Kg/day		398	kg/year

To sludge treatment plan		ZWC													
		1,0%	1,0%	1,0%	1,0%	1,0%	1,0%	1,0%	1,0%	1,0%					
Drymatter	from RAS														
Qmax=ca.	pumps in doses to waste water treatment plan	11,3	11,3	36,6	36,6	84,4	84,4	112,5	112,5	112,5	601,9	l/min		161 336	m3/year
COD	405 g/kg feed	162,0	162,0	526,5	526,5	1215,0	1215,0	1620,0	1620,0	1620,0	8667,0	Kg/day		1 613 362	kg/year
Tot N	45,8 g/kg feed	18,3	18,3	59,5	59,5	137,4	137,4	183,2	183,2	183,2	980,1	Kg/day		1 82 449	kg/year
Tot P	6,71 g/kg feed	2,7	2,7	8,7	8,7	20,1	20,1	26,8	26,8	26,8	143,6	Kg/day		26 730	kg/year

Primary treatment

RAS with fixed bed biofilter that captures particles Zero Water Change (ZWC)

